



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,273	07/23/2003	Martin J. Foley	MJF-100-A	8410
7590 01/12/2006			EXAMINER	
Arnold S Weintraub The Weintraub Group PLC 32000 Northwestern Highway Suite 240 Farmington Hills, MI 48334			KAUFFMAN, BRIAN K	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,273

Applicant(s)

FOLEY, MARTIN J.

Examiner

Brian K. Kauffman

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4,5,10,11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,11 and 13 is/are allowed.
- 6) ☒ Claim(s) 2,4,5,14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The examiner acknowledges that claims 1, 3, 6-9, and 12 have been cancelled and that claims 14 and 15 have been added.

Claim Objections

Claims 10 and 14 are objected to because of the following informalities:

In claim 10, line 6, "in" should be replaced with "being". In claim 14, the applicant initially recites "comparator" on line 10 without invoking 35 U.S.C. 112 sixth paragraph and then recites "comparator means" on line 20. In order to avoid confusion in regard to the limitations of the claim, "means" recited on line 20, should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4-5, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 14, line 6, the applicant recites the use of a load cell. Only one embodiment is disclosed in the specification that utilizes a load cell. That particular embodiment employs an adjusting means that comprises a knob that is manually turned in order to increase or decrease the tension on the thread and is illustrated in fig. 2 and 3. In claim 14, lines 21-23, the applicant recites that when the comparator generates a

Art Unit: 3765

command signal that the tension in the thread is not in conformance with the desired tension the adjusting means increases or decreases the compressive force on the thread. This limitation requires that the adjusting means itself increases or decreases the compressive force in response to the command signal. However, it is not understood how a knob that must be manually turned by an operator can also turn itself in response to a command signal.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 14 is rejected as so far as it is understood under 35 U.S.C. 102(b) as being anticipated by Rydborn (4,884,763).

In regard to claim 14, Rydborn discloses a thread tensioning apparatus for adjusting and monitoring the tension in a thread passing through a sewing machine during a stitching operation comprising a pair of clamping members (3 and 4) movably mounted in juxtaposition with one another, the clamping members being moveable towards one another and into clamping relation with a thread passing therebetween during the stitching operation; an electromechanical compression load cell (9) disposed in contacting relation against one of the clamping members, the load cell being separate and apart from the clamping members and operable under compression to generate an output signal representative of the compressive load placed on the load cell and the

Art Unit: 3765

tension in the thread; a comparator (fig. 6) for receiving and comparing the output signal to a predetermined value representative of a desired thread tension and providing a command signal to indicate that the clamping pressure against the thread and thus the tension in the thread is not in conformance with the desired tension; a force member (5) for biasing the other of the clamping members towards one clamping member and against the thread, the thread being squeezed between the clamping member and the clamping member being forced against the load cell wherein to place a compressive force on the load cell; and adjusting means (6) for increasing or decreasing the compressive force applied by the force member against the load cell, the adjusting means being in operable relation with the comparator (col. 3, lines 1-8). The adjusting means is capable of increasing and decreasing the compressive force on the thread when the comparator generates a command signal that the tension in the thread is not in conformance with the desired tension.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3765

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 4-5, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rydborn in view of Yamazaki (6,595,150).

In regard to claim 2, Rydborn teaches regulating the braking force being applied to the thread and monitoring the signal related to the thread (col. 3, lines 1-8 and 25-29). Yamazaki teaches utilizing a display unit (19) for displaying data received by a control system (col. 4, lines 6-11). Displaying the data on a display unit creates an interface with the user that allows the user to more easily monitor the signal related to the thread and adjust the brake force. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rydborn's apparatus to utilize a display as taught by Yamazaki in order to create an interface with the user that allows the user to more easily monitor the signal related to the thread and adjust the brake force.

In regard to claims 4 and 5, Rydborn discloses a mounting shaft (1) projecting from the housing, the shaft having a proximal and distal end, and a manipulator knob (6) connected to the distal end of the shaft wherein the load cell, clamping members, and

force member each have a central aperture for slidably mounting each on the support shaft between the housing and the knob and the clamping members each comprise a circular disc, and the force member comprises a helical spring (fig. 1).

In regard to claim 15, Rydborn discloses a tensioning device for a sewing machine for monitoring and adjusting the tension in a thread passed through the machine during a stitching operation which comprises a support shaft (1) having proximal and distal ends, respectively, connected to and spaced from a support wall of a sewing machine; a ring shaped electromechanical load cell (9), the load cell being mounted on the shaft and disposed next to the support wall; a pair of centrally apertured disc members (3, 4), the discs being mounted on the shaft with one disc being disposed against the load cell, the thread being routed between and engaged by the discs; an adjustment knob (6) threadably connected to the distal end of the support shaft; and a resilient helical coil spring (5) disposed about the shaft, the spring having opposite end portions with one and the other of the end portions, respectively, engaging the other of the disc members and adjustment knob, movement of the knob towards the support wall driving the spring and disc member against the load cell and compressing the load cell, the load cell, when compressed, being operable to generate an output signal representative of the amount of tension placed on the thread (col. 3, line 1-8).

Rydborn teaches regulating the braking force being applied to the thread and monitoring the signal related to the thread (col. 3, lines 1-8 and 25-29). Yamazaki teaches utilizing a display unit (19) for displaying data received by a control system (col. 4, lines 6-11). Displaying the data on a display unit creates an interface with the user

Art Unit: 3765

that allows the user to more easily monitor the signal related to the thread and adjust the brake force. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rydborn's apparatus to utilize a display as taught by Yamazaki in order to create an interface with the user that allows the user to more easily monitor the signal related to the thread and adjust the brake force.

Allowable Subject Matter

Claims 10-11 and 13 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 10 is allowed because it specifically requires that actuator rod be fixedly attached to the mounting shaft.

Claims 11 and 13 are allowed because claim 11 specifically requires that the actuator body be moved toward and away from both clamping members.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 10/24/05 have been fully considered but they are not persuasive. In response to applicant's argument regarding claims 14 and 15 that Rydborn's apparatus does not read on the instant invention because it teaches sensing the movement of the thread rather than sensing the tensioning force in the thread, a recitation of the intended use of the claimed invention must result in a structural

Art Unit: 3765

difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, the structure of Rydborn's apparatus is capable of monitoring and adjusting the tension in the thread in a similar manner as the instant invention.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamazaki (6,595,150) discloses a pneumatic device that monitors and adjusts the thread tension for a sewing machine.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Kauffman whose telephone number is (571)272-4988. The examiner can normally be reached on M-F every week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (571)272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKK
01/06/06


JOHN D. CALVERT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700